

Masters Project

Evaluation of Marine Resource Programs
In US Peace Corps Micronesia

by

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ABSTRACT

Over the last two decades US Peace Corps has implemented programs to assist Micronesia in the management and conservation of its marine resources. Most of these programs were heavily focused on building capacity and providing technical assistance at government and agency level. Programs focused on monitoring resources, developing aqua-culture and eco-tourism opportunities, drafting policy and management plans, promoting traditional fishing practices and educational outreach. These programs have since been terminated, and the Peace Corps has consolidated its efforts into community-based programs (education and youth development). In some cases, volunteers have been assigned secondary projects in marine resource education.

A survey was administered to volunteers who served in two of these terminated marine resources programs to identify challenges in building capacity at the government and agency level. These volunteers determined that training prior to Peace Corps service (technical, cultural, and language) was adequate in preparing them for their two year assignments. They implemented projects with their host agency assignments to satisfy program goals. However some host agencies insisted volunteers worked on projects more suited to the agency's agenda. Programs were developed to be compatible with Micronesian culture and applicable to its developing economy and society. However several challenges hindered the ability of these programs to achieve long term sustainability beyond two year term of the volunteer. These challenges included: lack of community integration, lack of host agency volunteer-counterpart partnerships, and grant funding dependence. Several volunteers also described that Peace Corps administration and local agency and/or community leadership were not dedicated to program specifics and that this leadership was crucial to program success.

A list of recommended program improvement areas was constructed from these volunteers' survey responses, which the Peace Corps could consider in choosing secondary projects in marine resource management. These recommendations included that projects should focus on primary education and in community based (managed) areas with cultural practices integrated. They should incorporate assertive community leadership that motivates local program counterparts to be more dedicated to implementing program goals. Projects should not be heavily dependent on volunteer ability to gain grant funding for project survival. Peace Corps administration should increase efficiency in communication and commitment to each volunteer's personal assignment, when financially feasible. These recommendations were then compared to the goals of a current secondary marine resource education and management project in a Marine Protected Area (MPA) in Yap, Federated States of Micronesia. It was determined that several of the recommendations were in keeping with the goals of this project. Based on this discovery, a list of additional community based marine protected areas was identified which would be appropriate for Peace Corps support. The Peace Corps should consider expanding into these secondary project opportunities should they meet current program guidelines for education and youth development in Micronesia.

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SECTION 1: INTRODUCTION

While campaigning for his presidency in 1960, former President John F Kennedy voiced his vision to “promote world peace and friendship” in a late night speech to students at the University Michigan. The following year during his inaugural address Kennedy’s infamous words of, “*ask not what your country can do for you – ask what you can do for your country*” convinced the US government to turn this vision into a reality. On September 22, 1961 Congress approved legislation that formally authorized the creation of the federal agency US Peace Corps. The Peace Corps then began to serve its mission to send voluntary American citizens to developing countries to support its three goals:¹

- *Helping the people of interested countries in meeting their needs for trained men and women;*
- *Helping promote a better understanding of Americans on the part of the peoples served; and*
- *Helping promote a better understanding of other peoples on the part of Americans.*

Since the Peace Corps inception, over 187,000 volunteers have served in 139 countries worldwide. Currently, the Peace Corps has 7,533 volunteers and trainees located within 71 countries working under the following programs: Education, Health and HIV/AIDS, Environment, Business Development, Agriculture, and Youth².

¹ <http://www.peacecorps.gov/index.cfm?shell=learn.whatispc.mission>

² <http://www.peacecorps.gov/index.cfm?shell=learn.whatispc>
<http://www.peacecorps.gov/index.cfm?shell=learn.whatvol>

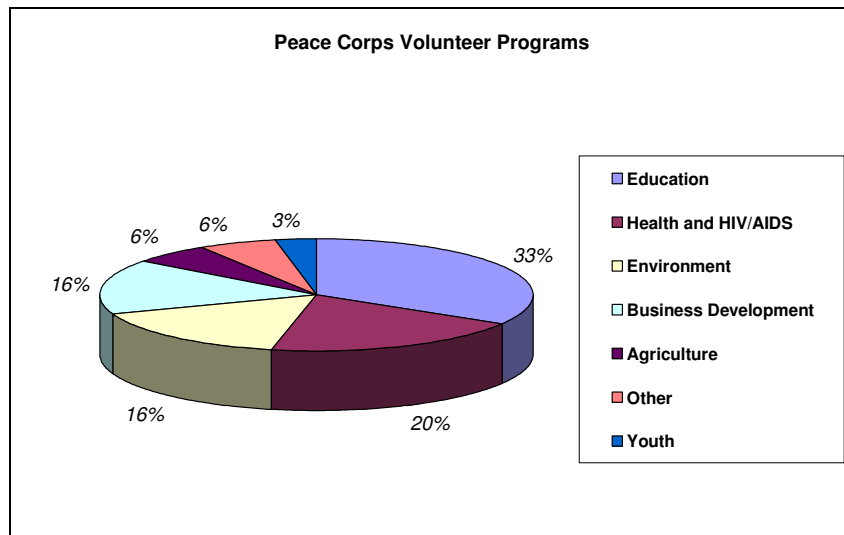


Figure 1: Distribution of Current Peace Corps Service Programs

The Peace Corps has provided these service programs for the Western Pacific Region of Micronesia since 1965. The Federated States of Micronesia (FSM) is one island nation that the Peace Corps has provided volunteer services to within this region. The FSM is comprised of 607 islands, mostly atolls, that are grouped together to form four island states: Yap (Waab), Chuuk (Truk), Pohnpei (Ponape), and Kosrae. With a land mass of 700 square km, the FSM stretches across 2,900 km of Pacific Ocean in the tropical climate of the Western Carolinian archipelago. The FSM inhabits a combined population of 108,500 people (*Infoplease FSM 2007*).

The Republic of Palau is another island nation that the Peace Corps has provided volunteer services to for over the last forty one years. Palau is comprised of 8 principle islands with 250 surrounding smaller islands. Its total land mass is 458 square km extending across 1,519 km of Pacific Ocean. Palau is located to the west of the FSM in the Caroline Islands, and inhabits almost 20,000 people (*Infoplease Palau 2007*).



Figure 2: Map of Micronesia³

Early inhabitants of the FSM were presumed to be Indonesian migrants some 4000 years ago (*Lonely Planet FSM 2007*). Melanesian migrants are debated to be the early inhabitants of Palau in 500 to 1500 AD (*Lonely Planet Palau 2007*). Little was known about their culture prior to settlement in Micronesia. The evolved Micronesian culture is unique due to its geographic isolation from the rest of the world. Traditionally Micronesians are known for the navigation, carving, and fishing skills, as well as the practice of their oral history through remarkable dances.



Figure 3: Yapese Traditional Culture⁴

³ [http://members.aol.com/ ht_a/giocav/home.htm](http://members.aol.com/ht_a/giocav/home.htm)

⁴ www.pilotguides.com/.../micronesia/index.php; <http://www.lclark.edu/~clifton/micronesia/>

Although there has been a significant history of foreign occupation and influence in this region, the culture is still considered strong today. See Appendix A: Micronesian History. However, this culture was traditionally based on subsistence living practices that have been influenced by each generational progression. These influences include the practice of advanced technology, influence of western civilization, transition into market economies, and the development of public government. There are also physical forces impacting the preservation of culture in the smaller island atolls. These inhabitants are being forced to migrate to main island states leaving some of the oldest Micronesian traditions behind. These forces include damages incurred from salt water intrusion, erosion caused during typhoon disasters, and sea level rise (*SD Council 2002*).



*Figure 4: Micronesian Islands*⁵

In the goals stated previously, the Peace Corps has supported programs to promote traditional culture in the communities that it serves including the FSM and Palau. In the last two decades these programs have been developed under an “adaptive management”

⁵ www.usdivetravel.com/R-MantaRayBayYap.htm
www.virtualtourist.com/m/28be5/c77

strategy to integrate the preservation of culture with the transition of these nations into modern society. More specifically, the Peace Corps has expanded its program development to promote sustainable growth with conservation and management of its marine resources.

The management of marine resources is crucial for sustainable growth in these island nations. These resources have supported the social, economic and cultural development of Micronesia since its first migrants. Traditionally marine resources were utilized in everyday life and provided for food, medicinal, and cultural purposes. Still today fish provide the primary source of protein in the diet of Micronesians. Traditional practices in fisheries harvesting included utilizing outrigger canoes and rafts to catch fish in stone and bamboo traps. Traditional management of these resources was considered to be in balance with nature and allowed biodiversity to be utilized in a sustainable manner (Stevenson 2005).



Figure 5: Micronesian Traditional Fishing Practices⁶

⁶ Riken Community. “Implementation of a Management Plan for the Riken Village Marine Protected Area,” Riken Village 2006.
www.pacificbliss.com

Diversity among marine species is important to its coral reef ecosystems that support abundant food web chains. There are over 1,000 known fish species alone in this Pacific region and some 350 species of corals. Important offshore fishes include various species of tuna, mackerel, marlin, grouper, parrotfish, and shark. Inshore fisheries include several species of eel, sea anemones, star fish, and various coral reef fish. Other harvested marine organisms include giant clams, snails, sponges and sea cucumbers (*SD Council 2002*).

Over the last two centuries, foreign exploration and occupation have influenced the Micronesians to exploit their marine resource assets beyond subsistent means. Today, most families have motor boats, spear guns and microfilament nets leading to over-exploitation of marine resources and decrease in biodiversity. The commercial fishery industry has also taken advantage of the offshore EEZ (Exclusive Economic Zone) providing economic gain but increasing the risks of over-exploitation in lack of integrated management plans (*SD Council 2002*).

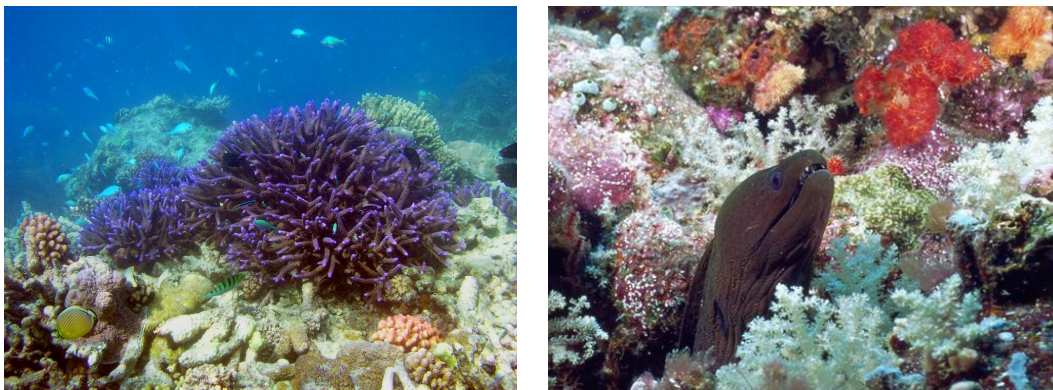


Figure 6: Micronesian Coral Reef Ecosystems⁷

⁷ Riken Community. "Implementation of a Management Plan for the Riken Village Marine Protected Area," Riken Village 2006; www.divetravel.info/photo_gallery/palau1.htm

To make matters worse, the government sector has struggled to develop and enforce public policies to protect these resources. Both nations are new in their independence and their growth relies heavily on US Compact Funds allocated to the government sector. Many traditional leaders oppose that compact funding is administered through the public sector. They detest that their weakened influence erodes national autonomy and deteriorates traditional values. Therefore, traditional leadership with political clout is not likely to allow the government to manage community resources (*Stevenson 2005*).

However, Micronesia recognizes the importance of protecting marine resources, biodiversity and cultural heritage in order to continue social and economic improvements in a sustainable manner. Compact funds supplied by the US are required to be utilized for resource management and environmental protection in the development of these nations. Therefore, government, non-government (NGO), academic, and private sector organizations have been working to manage westernization with preserved traditional practices and resource conservation. The Peace Corps has assisted these sectors in building capacity and providing technical assistance with two programs.

One of the programs, Marine Resource Conservation and Development (MRCD) Program has been active over the last two decades. Its purpose was to increase capacities of host agencies in maintaining marine resource-based economic opportunities while providing training in business planning and operations. Volunteers in the MRCD Program were placed in government, non government (NGO), and academic institutions

to implement projects under the following goals (*Peace Corps Micronesia Handbook 2000*):

- *Goal 1: Assist the Host Agency with the development of the skills needed in coastal management areas, in order to improve the utilization and management of natural resources; and*
- *Goal 2: Establish income generating aquaculture projects.*

In general volunteers worked on projects that involved baseline coral reef, fish, and invertebrate monitoring, resource harvesting management, low maintenance income generating aquaculture developments, and conservation outreach/education. A more detailed description of these projects is located in Table 4 of the results section.

Another program that ran concurrently with the MRCD Program was the Capacity Building for Environmental Management in the Pacific Program (CBEMP). Its purpose was to integrate traditional and non-traditional resource management systems within environmental management institutions, local government operations, and within the community. Volunteers in the CBEMP Program were also placed in government and NGOs to implement projects under the following four part goal (*Peace Corps Micronesia Handbook 2000*):

- *Goal 1: In collaboration with local communities, develop coral reef survey and monitoring techniques; collecting existing traditional conservation practices and storing data into a central database; researching eco-tourism opportunities; and producing educational materials and teaching curricula.*

In general volunteers worked on projects that involved policy and management development, environmental campaigning, regulatory enforcement, community based reef monitoring, and eco-tourism opportunities. A more detailed description of these projects is located in Table 4 of the results section.

While both of these programs served the FSM and Palau over the last two decades, the CEBMP Program was terminated in 2003 and the MRCD Program was terminated in 2006. The Peace Corps has since consolidated its programs in Micronesia to primarily focus on teaching English as a Second Language (ESL) and Youth Development. Upon request from an agency or community, a volunteer is assigned secondary projects to focus on environmental and health outreach (*Adams 2006*).

One example of a secondary project in Yap, Federated States of Micronesia (FSM) involves a volunteer whose primary focus is teaching English as Second Language (ESL) in a village elementary school while assisting the community members of the village in the management of a Marine Protected Area (MPA). Marine Protected Areas are often community based and managed and have several benefits to serve the participating community if managed in a sustainable manner. For example, the MPA that was developed in Yap, FSM was organized to be managed by community members. It was also developed to implement sustainable management plans with local agency partners and US Peace Corps assistance. This assistance included funding, education and

technical training (*Riken Community 2006*). The goals of the implementation plan are stated below.

- The community determined and agreed to develop a “no take zone”, This restricted all fishing from a designated aquatic area in the village;
- Community members committed to receive training and agreed to monitor the resources in the “no take zone” over a two year period with assistance from partnership agencies, and the Peace Corps volunteer;
- The community formed partnerships with local hotels to set up paid cultural and ecosystem tours in the village and MPA. The community provided a local guide to conduct the tours and promoted traditional practices;
- The income generated from user fees was utilized for the upkeep of management area and village. It also compensated community members for loss of fishing opportunities;
- Community members committed to restore and promote traditional harvesting practices (i.e. bamboo and stone fish traps);
- The Peace Corps provided an education volunteer to promote marine conservation and management in the community and to elementary students in the village; and
- Local agencies assisted with technical training and grant funding.

The MPA in Yap is new in its developments and will continue to be implemented over the 2007 to 2009 timeframe. See more details in Appendix B.



Figure 7: Yapese Displaying Traditional Practices near the MPA⁸

⁸ Riken Community. “Implementation of a Management Plan for the Riken Village Marine Protected Area,” Riken Village 2006.

SECTION 2: OBJECTIVES

The Peace Corps has provided several years of volunteer services to assist FSM and Palau government and non-government agencies in building capacity to manage and protect its natural resources. These programs have since been terminated as of 2006. An evaluation from volunteers that served in the two marine resource programs described above could identify challenges in implementing the management and protection of these resources. These challenges could determine if improvements could be made. These improvements could be compared to Peace Corps current programs in the FSM and Palau.

This comparison could determine if Peace Corps will successfully implement protection and management of these resources in community managed areas. If it is determined that Peace Corps current developments in marine resource education successfully address improvement areas, additional community managed areas could be identified. The identified areas could be further investigated by the Peace Corps for expanding its efforts to once again assist in the protection and management of marine resources in the FSM and Palau. Based on this information, the following objectives were researched to:

- *Identify challenges that volunteers faced in building capacity and providing technical assistance in the MRCD and CBEMP Programs, (1999 to 2003);*
- *Determine how improvements to these challenges compare to current marine resource projects in Peace Corps FSM and Palau; and*
- *Use the results of the comparison to identify opportunities to expand marine resource projects under current Peace Corps Programs in FSM and Palau.*

SECTION 3: MATERIALS AND METHODS

The objectives of this Masters Project (MP) were addressed through a combination of survey and comparison activities. The following activities were conducted:

- A survey was administered to Peace Corps volunteers who served in either the Marine Resource Conservation and Development (MRCD) Program or Capacity Building in Environmental Management for the Pacific (CBEMP) Program in the FSM and Palau. The survey was designed to obtain both quantitative (close-ended) and qualitative (open-ended) responses to program challenges.
- A list of improvement areas for implementing marine resource education and management in the Federated States of Micronesia (FSM) and Palau was constructed based on an evaluation of survey responses.
- The recommended list of improvement areas was compared to the goals of a current Peace Corps' secondary project in marine resource education and management in Yap, FSM.
- Based on results from the comparison, a recommended list of specific assignment locations for potential expansion of Peace Corps projects in marine resource education and management was provided.

Each of the above research methods were designed to comply with Duke University MP guidelines. The Duke Environmental Leadership Program student and primary advisor for the project were certified by Duke University to conduct research on human subjects of non-medical research. The Duke University Institutional Review Board (IRB) approved the research protocol on the conditions that participation was voluntary and individual names of participants and agencies that hosted them were omitted. Data was

collected from human subjects, after IRB approval, between January 18th and March 25th, 2007. A description of the survey, recommended improvement areas, and comparison; and their method and evaluation is provided in greater detail below.

3.2 Peace Corps Volunteer Survey

To satisfy the intent of objective 1: *Identify challenges that volunteers faced building capacity and providing technical assistance in the MRCD and CBEMP Programs, (1999 to 2003)*, a survey was administered to 16 Peace Corps volunteers that served in the these programs during this timeframe (14 MRCD Program volunteers and 2 CBEMP Program volunteers). The survey consisted of 78 questions (to cover both quantitative and qualitative responses) and was broken down into seven parts. Participants were provided a link to an online survey program to enter responses. A description of each part is provided below.

- Part 1: The first part of the survey provided survey participants with background information on the research topic and consent for voluntary participation. There were no questions in Part 1.
- Part 2: The second part of the survey consisted of 11 questions. Six of these questions covered topics related to the program's effectiveness during training prior to Peace Corps service (i.e. was training adequate, crucial to implementation, voluntary extended training, and challenges during training). The remaining 5 questions covered topics related to the program's intent to address relevant issues during the pre-service training timeframe (i.e. were

- purpose and goals clearly defined for volunteer/agency, and agency capacity to implement goals upon arrival to assignment location)
- Part 3: The third part of the survey consisted of 12 questions. Ten questions covered topics related to reflecting on the two year project implementation period as a volunteer (i.e. assignment location, projects, volunteer-host agency counterpart roles, challenges and accomplishments). The remaining 2 questions covered topics related to the program's intent to successfully address projects that supported purpose and goals.
 - Part 4: The fourth part of the survey consisted of 22 questions. Eighteen questions covered topics related to measuring program sustainability throughout the implementation period (i.e. term of service- completed, transferred, or extended assignment, replacement volunteers, employee turn-over rate; and Peace Corps, local agency, and/or community leadership roles). The remaining 4 questions covered topics related to the program's intent to maintain long term sustainability (i.e. was purpose and goals sustained with host agency during and post volunteer service with agency).
 - Part 5: The fifth part of the survey consisted of 19 questions. Twelve questions covered topics related to external factors that influenced the relevance in addressing environmental issues facing the FSM and Palau (i.e. adequate environmental sector representation, environmental policy, impacts from economic transition – subsistent to cash economy, and community outreach). The remaining 7 questions covered topics to determine if program intent was aligned with FSM and Palau needs or if they were self-imposed (i.e. program purpose and

- goals compatible with Micronesian culture, applicable to social and economic development and managed by community).
- Part 6: The sixth part of the survey consisted of 13 questions that provided an opportunity for volunteers to suggest areas of program improvement and focus on environmental outreach for current programs in Peace Corps FSM and Palau. Three of the questions offered recommendations in evaluating areas of program improvement based on the topics discussed throughout the survey (i.e. training, implementation, sustainability, and relevance). Ten of the questions provided volunteers with the opportunity to suggest recommendations to the Peace Corps regarding environmental outreach as secondary projects in education.
 - Part 7: The last part of the survey consisted of one question that offered participants an opportunity to comment on any additional points about the survey or their Peace Corps experience.

A copy of the survey administered to participants is provided in Appendix C.

3.3 Survey Data Evaluation

Survey responses were collected between January 18th and March 25th, 2007 and stored in an online survey program for research evaluation and analysis. Both quantitative and qualitative survey responses were evaluated to identify:

- Internal and external challenges that MRCD and CBEMP volunteers faced implementing agency level projects in the FSM and Palau

And then determine if:

- Peace Corps should continue marine resource education and management in the FSM and Palau
- A list of recommended improvement areas in marine resource management areas could be identified.

After evaluating all survey questions responses, some questions were omitted from the analysis.

3.4 Recommended List of Improvement Areas in Marine Resource Management and Education Derived from Survey Evaluation

To satisfy the evaluation of the second objective: *Determine how improvements to these challenges compare to current marine resource projects in Peace Corps FSM and Palau,* An analysis of the above survey was utilized to determine if a list of recommendations could be constructed.

This proposed list of recommended improvements areas could then be compared to the goals of a current Peace Corps secondary project in marine resource education and management in Yap, FSM to determine if:

- These improvements evaluated from the agency level could be transferred to current Peace Corps “community-based” projects in marine resource management.

3.5 Comparison of Recommended Improvement Areas List to Goals of Current
“Community-Based” MPA Peace Corps Project in Yap, FSM

To satisfy the evaluation of objective 3: *Use the results of the comparison to identify opportunities to expand marine resource projects under current Peace Corps Programs in FSM and Palau.* it was determined that the recommended list of improvement areas had similar qualities to the goals established for the Peace Corps “community-based” MPA project in Yap, FSM. This comparison was evaluated to determine:

- If there were enough similarities to list other specific assignments in marine managed areas to expand secondary marine resource projects in the FSM and Palau.

The results of all three methods and their evaluations (survey, recommended list of improvement areas, and comparison) are analyzed in the following results section.

SECTION 4: RESULTS AND DISCUSSION

4.1: Peace Corps Volunteer Survey Response

The survey was originally administered to 14 volunteers who served in the Marine Resource Conservation and Development Program and 2 volunteers who served in the Capacity Building in Environmental Management for the Pacific Program. A total of 12 volunteers (10 from MRCD Program and 2 from CBEMP Program) responded. The 12 responses represent:

- a 75% total response return (when consolidating the two programs)
- a 71% response return for MRCD Program
- a 100% response return for the CBEMP Program

There were two volunteers from the targeted timeframe (one from MRCD Program and one from CBEMP Program) that were not located. A cumulative percent coverage of all volunteers from both programs including response return and those that were not contacted shifted response representation:

- a 67% total response return (when consolidating the two programs)
- a 67% response return for MRCD Program
- a 67% response return for the CBEMP Program

4.2: Peace Corps Volunteer Survey Results

The survey was administered in the following parts to evaluate program challenges and develop a list of improvement areas in marine resource management and education:

- Part 2: Pre-Service Training
- Part 3: Project Implementation
- Part 4: Program Sustainability
- Part 5: Program Relevance
- Part 6: Recommendations
- Part 7: Additional Comments

Part 1 provided survey participants with the background for the research, instructions for completing the survey, and voluntary consent information. There were no questions in Part 1 of the survey. The results for Parts 2 thru 7 were evaluated in detail below.

4.2.1 Part 2: Pre-Service Training Survey Results

Volunteers that served in the Marine Resource Conservation and Development (MRCD) Program underwent six weeks of training in Palau prior to their assignment placement. This training consisted of technical skills needed for aquatic species and habitat monitoring, data collection and recording of monitoring findings, development of aquaculture projects, and site visits with local agencies in Palau working in the environmental sector. The volunteers were also provided with resources for grant writing, language and culture training, and history of region with information regarding US Compact agreements.

After the first six weeks of training was completed, volunteers were sent to their permanent assignment locations in the FSM and Palau for the duration of their Peace Corps tenure. They underwent another six weeks of training conducted by local Peace Corps staff with their host agency and their host family. Once a volunteer completed the 3 months of pre-service training they were inducted as official US Peace Corps volunteers to serve their 2 year tenure. Additional language training was offered on a voluntary basis.

Volunteers that served in the CBEMP Program underwent six weeks of training in Western Samoa prior to their assignment placement. This training consisted of similar technical skills as offered in the MRCD Program, plus site visits to environmental sectors in Samoa. The volunteers were also provided with resources for drafting marine resource policy, environmental campaigning, eco-tourism development, and community based management plans. After the first six weeks of training was completed, volunteers were sent to their permanent assignment locations in the FSM and Palau. They underwent another week of training conducted by local Peace Corps staff with their host agency and their host family. Once the volunteer completed the 7 weeks of pre-service training they were inducted as official US Peace Corps volunteers to serve their 2 year tenure. Additional language training was offered on a voluntary basis.

Volunteers in both programs responded to 11 questions in this part of the survey. Five of these questions were utilized to evaluate the effectiveness of pre-service training in preparing volunteers for their project assignments. One question regarding pre-service

challenges was compared to challenges after two years of service and evaluated in the next part of the survey involving “project implementation”. The remaining 5 questions covered topics related to program intent to address relevant issues during the pre-service training timeframe (i.e. were purpose and goals clearly defined for volunteer/agency, and agency capacity to implement goals upon arrival to assignment location) and were evaluated under the “program relevancy” part of the survey results. Results of an evaluation of responses to the first 5 questions are presented below. Four of the questions required closed-end responses (yes/no) and are listed below in Figure 8. The fifth question was an open-ended elaboration on Question 1.

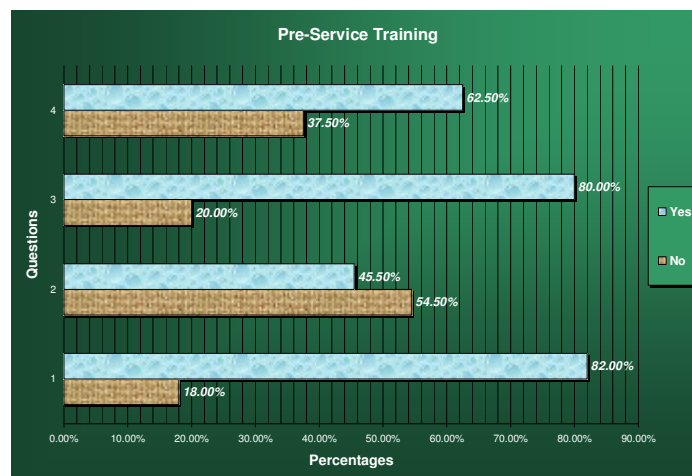


Figure 8: Pre-service Training

Question (1): Did you receive adequate pre-service training to prepare you for your role in the program that you served in?

Question (2): Did you receive training with your host agency post pre-service training?

Question (3): If yes, did you think this continued training was crucial to implementing projects with your host agency?

Question (4): If not, would additional training have been beneficial to project implementation?

Over 81% of volunteers determined that pre-service training was adequate. However, when asked to elaborate on this question, many volunteers wanted to see Peace Corps staff (training and administration) more devoted to program specifics with host agencies during this timeframe. For the most part, volunteers were trained with Peace Corps staff and their host agencies separately, with little integration of all three together (volunteer, Peace Corps staff and host agency) on critical technical skills and management planning. At least 45 % of volunteers underwent voluntary extended training with their host agency. Eighty percent of those volunteers determined that this extended training was crucial to implementation of projects. Of the 55% that did not receive additional training, at least 60 % of those volunteers determined that it would have been beneficial to project implementation. In conclusion, since Peace Corps staff did not conduct training related to program specifics with volunteer and their host agency together, at least volunteers benefited from voluntary training with assigned agency counterparts prior to project implementation.

4.2.2 Part 3: Project Implementation Survey Results

After volunteers were inducted into the Peace Corps, they served a voluntary two-year tenure working with their host agency and living with their host family they were assigned. Volunteers in Micronesia were required to live with host families for the duration of their tenure. If for any reason a volunteer decided to leave the Peace Corps, they were allowed to do so during any time of service. In rare cases determined by Peace Corps staff, if there was a conflict of interest between host agency and / or host family, a volunteer was re-assigned to one or both. Otherwise, if it was determined to not be

feasible for re-assignment, the volunteer was terminated from service and sent home.

After the two year tenure was completed, volunteers could request to extend their service for an additional year or two. Volunteers could continue to work with same host agency or on other projects that developed over the course of a volunteer's original assignment and tenure.

Volunteers in both programs responded to 12 questions in this part of the survey.

Ten questions covered topics reflecting on the two year implementation period as a volunteer (i.e. location, projects, volunteer and counterpart roles, challenges and accomplishments). The remaining 2 questions covered topics related to the program's intent to successfully implement projects that support program goals of the course of service and was evaluated under the "program relevancy" part of results.

Eight of the questions were comprised of both open- and close-ended responses and were utilized to elaborate on where volunteers served, what projects they worked on, if they were assigned local counterparts, and what roles they performed in project implementation. Peace Corps volunteers were supposed to be assigned counterparts to cross train and implement projects in a partnership together. Results of an evaluation of responses to the first eight questions are presented below.

One-half of volunteers served their assignments in Palau (5 from MRCD Program and 1 from CBEMP Program). Three volunteers served in Yap, FSM (2 from MRCD Program and one from CBEMP Program). Three volunteers served in Pohnpei, FSM (all MRCD

Program) and one MRCD volunteer served each in Chuuk and Kosrae, FSM. Most of the volunteers who served in the FSM were assigned to projects in the government sector. Most of the volunteers who served in Palau were assigned to projects in the non-government sector. A few volunteers in both countries were placed with academic institutions.

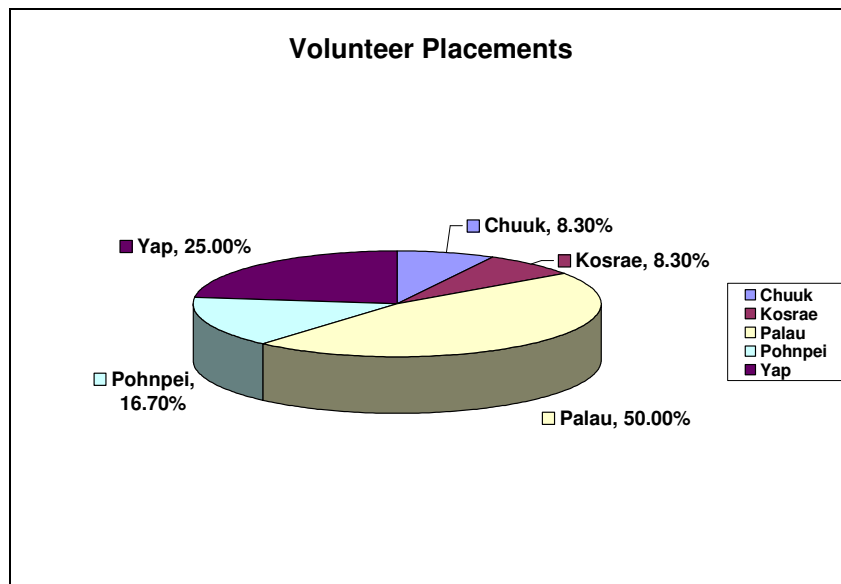


Figure 9: Distribution of Volunteer Assignments in FSM and Palau

Volunteers were asked to describe the type of projects they worked on with their host agencies. It was determined that volunteers in both programs and within both countries worked on similar projects. These projects were summarized in the Table 1 below.

Table 1: MRCD and CEBMP Program Projects from years 1999 to 2003

Project Type	Project Descriptions	Number of volunteers working in these projects
Resource Monitoring	Coral reefs, fishes, turtles, sea grass, marine invertebrates	11
Education – Teaching	Trade school, elementary school, and college	5
Education – Outreach	Publications, campaigns, library and aquarium exhibits	13
Data Collection and Report Writing	Resource data base, EIS	5
Policy and Management Plan Drafting	Coastal area resource protection	2
Aqua-culture development	Shrimp, clam, sponge, corals	2
Marine Protected Areas	Community management of reserves, sanctuaries, and designated “no take” zones	5
Emergency Response	Oil spill, ship wrecks, and typhoon events	3
Fund Raising	Money for resource and capacity	2
Marine Labs	Aquaculture development	2
Law enforcement and regulations	Resource harvesting size, gender, limit, and location	2
Waste Disposal	Hazardous waste management	2
Water quality	Dissolved oxygen, turbidity, nitrogen, and solid waste testing	2

Volunteer were asked to describe what type of roles they performed during project implementation. It was determined that volunteers from both programs and within both countries shared similar roles. These roles included: trainers, teachers, report writing, facilitators, coordinators, developers, fund raisers, and engineers.

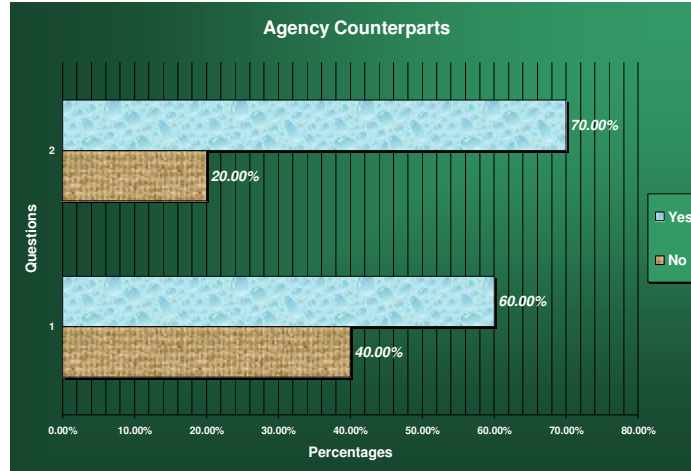


Figure 10: Agency Counterpart Participation

Question (1): Did you have a counterpart?

Question (2): Did you work efficiently with your counterpart on project implementation?

Volunteers were supposed to be assigned counterpart(s) to share the above roles in implementing projects over the course of the two years. The goal of a counterpart partnership was for Peace Corps volunteers to provide capacity building within the host agency and exchange cultural backgrounds. Once a volunteer or a series of volunteers completes a Peace Corps assignment, the agency was supposed to be capable of carrying on projects without the need for volunteer assistance. Sixty percent of volunteers (100% of CBEMP Program volunteers) had counterparts assigned to them to assist in implementing projects. Of that, 70% determined that they were able to work efficiently with their host agency counterparts (cross training, cultural translation, and equal partnership in roles) to implement projects over their two year term.

However, 40% of volunteers in the MRCD Program did not have local counterparts to share these roles in project implementation. Thirty percent of volunteers (representing both programs) that did have counterparts determined that these counterparts were either

not dedicated to the shared responsibility of the program, worked on other projects aside from the goals established in the program, or worked in an agency that had high employee turnover rate and therefore lost counterparts early.

Volunteers were then asked a question to describe the challenges they experienced during the two years they implemented these projects. These challenges were compared to challenges volunteers faced during the beginning of their service. This comparison is provided in Table 2 below.

Table 2: Former Volunteer Challenges Compared

Challenges at the beginning	Challenges over course of two year	Observed in both cases (yes/no)
Cultural barriers	Cultural barriers	<i>Yes</i> – although relationships were built over time, gaining respect and learning the culture and language of another country was challenging throughout tenure of service
Patience “island pace of life”	Patience “island pace of life”	<i>Yes</i> – although volunteers adapted to pace of life, the slow process of implementation challenged volunteers to motivate the Micronesian culture
No or lack of host agency counterpart dedication to program	No or lack of host agency counterpart dedication to program	<i>Yes</i> – Due to cultural barriers and pace of life, volunteers that did not have host agency counterparts and their dedicated partnerships were challenged in implementing projects
Developing secondary projects (in lack of primary focus)	Money corruption of funds	<i>No</i> – See description in paragraph below
Adapting to host agency agenda (Not goals of Peace Corps program)	Regulatory rule breaking	<i>No</i> – See description in paragraph below

The first three challenges were observed to have occurred throughout the tenure of volunteer service. The latter two differed. Volunteers that experienced challenges in developing secondary projects and adapting to other agendas with their host agency found that compromising program goals to provide other requested services was more important. However, new challenges surfaced over the course of their two year tenure. Some volunteers that had roles in obtaining grant funding witnessed misuse of these funds and resources. Some volunteers that worked on developing regulatory processes for resource protection witnessed enforcers breaking the rules themselves.

Although volunteers faced many challenges to implement projects there were also many accomplishments made over the course of the two years. Volunteers were asked a final question in this portion of the survey to elaborate on these accomplishments. Of the projects listed above these accomplishments were mostly observed in resource monitoring, environmental education/outreach, cultural exchange, and in the community based and/or managed areas.

4.2.3 Part 4: Program Sustainability Survey Results

For this portion of the survey, volunteers were asked questions to evaluate what level of sustainability these programs had accomplished during implementation with their host agency, among the Peace Corps administration, and within communities of Micronesia. Volunteers in both programs responded to 22 questions in this part of the survey. Eighteen of these questions were comprised of open- and closed-ended responses and were utilized to determine if and to what level both programs were sustainable in

addressing resource management issues from the agency level in the FSM and Palau. The remaining 4 questions covered topics related to program intent to maintain long term sustainability (i.e. was purpose and goals sustained with host agency during and post volunteer service with agency) and were evaluated under the “program relevancy” part of results.

Nine questions were comprised of both open- and closed-ended responses to determine the length of volunteer service (i.e. whether they completed their two year tenure, terminated early, transferred or extended service for additional years). Both programs were in the midst of their phase for completion, so volunteers were also asked whether or not they were replaced with another volunteer. Results of an evaluation of responses to the first nine questions are presented below.

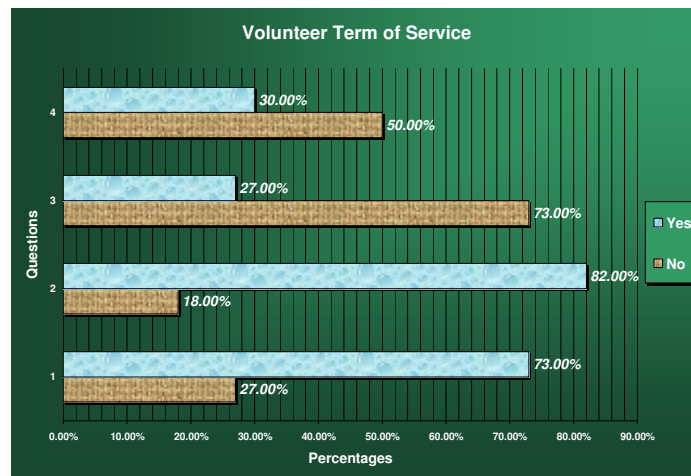


Figure 11: Volunteer Term of Service

Question (1): Did you serve your two year term with the Peace Corps in your program?

Question (2): Did you stay with the same agency for your term?

Question (3): Did you extend your service?

Question (4): To your knowledge, was your position replaced with another volunteer when you completed your term?

At least 73% of volunteers completed their term with the Peace Corps and 82% of those volunteers remained with the same host agency throughout the two year term. It was determined in two cases (both from MRCD Program) that volunteers transferred to another agency during their tenure. These volunteers were asked to elaborate on this question. One volunteer was transferred from a government agency in Chuuk to an international NGO in Palau. In the opinion of the volunteer, the agency was barely operating at the functional level. The volunteer felt that the host agency demanded more responsibility than the volunteer felt capable of performing under these circumstances. The volunteer also felt that Chuuk, being the poorest socio-economic island state in the FSM, needed Peace Corps volunteers in other development areas at its current level of independent development.

The other volunteer was transferred from a trade school assignment to a local NGO within Pohnpei, FSM. In the opinion of the volunteer, the agency was a good Peace Corps assignment. Surprisingly to the nature of Micronesian culture, the agency demanded a work load from the volunteer that conflicted with time needed to spend with host family. The Micronesian culture has a strong community work ethic. Since one of the Peace Corps goals is cultural exchange, volunteers are encouraged to spend an equal amount of time invested in community chores and events with their host families. A volunteer's time invested with the community and host family in most cases does not interfere with what is expected of the volunteer at the host agency assignment. According to a high percentage of volunteers that either completed their assignments or were able to

transfer to another agency, the programs were sustainable at least within this two year duration.

Only 27% of volunteers extended for a third year of service. These volunteers were asked to elaborate on their extensions. One volunteer in the CBEMP Program extended for an additional year with a government resource management agency in Yap, FSM. A volunteer in the MRCD Program extended for an additional year with a local NGO in Pohnpei, FSM. Another volunteer in the MRCD Program turned a secondary project into a one year extension leaving a state agency for a non profit organization in Palau.

To their knowledge, only 30% of volunteers were replaced with another volunteer in their assignments. Volunteers were asked to elaborate on this question. For assignments that received replacements, the agency was expanding and needed continued volunteer assistance. Volunteers that were not replaced explained that there was either a misuse of grant funds, loss of program support, or a transfer of program responsibility to other assisting agencies. In conclusion, a few assignments were sustained for an additional year and with replacements, but in several cases, projects did not exceed the life of the volunteer assignment. In other cases volunteers determined that Peace Corps volunteers were no longer needed for their assignments.

Another six questions consisted of both open- and closed-ended responses to evaluate whether the length of Peace Corps Administration positions, the administrative leadership and the leadership of the host agency affected the level of sustainability for these

programs. Results of an evaluation of responses to these six questions are presented below.

Peace Corps Administration plays the primary role in program oversight. Their positions with participating countries, like volunteers, are temporary (2 years). The administration for FSM and Palau was centered in Pohnpei, FSM. Site visits to specific locations throughout the region were limited due to lack of funding for traveling the geographic distances. Therefore, one local Peace Corps staff office was located in each FSM state and Palau to assist volunteers. Volunteers were asked whether this short term position with limited program evaluation impacted program sustainability. From the perspective of volunteers in both programs, 60% determined that the turnover rate of Peace Corps administration in the FSM and Palau weakened the ability for Peace Corps to sustain these programs with their host agency partners.

It was also determined by 70% of volunteers that since Peace Corps administrative positions were both temporary with limited program evaluation, their leadership style was crucial to program sustainability. Volunteers were asked to elaborate on this observed leadership style. Although a few volunteers were satisfied with the level and type of leadership this administration exemplified, many volunteers felt that Peace Corps Administrative positions were too short and disconnected to volunteer, host agency and program. The administration was not dedicated enough to evaluate the core of program progress or the needs of volunteers. The few volunteers that were satisfied with this

leadership believed that the administration was helpful throughout the project assignment needs, and did the best job available within their limited means.

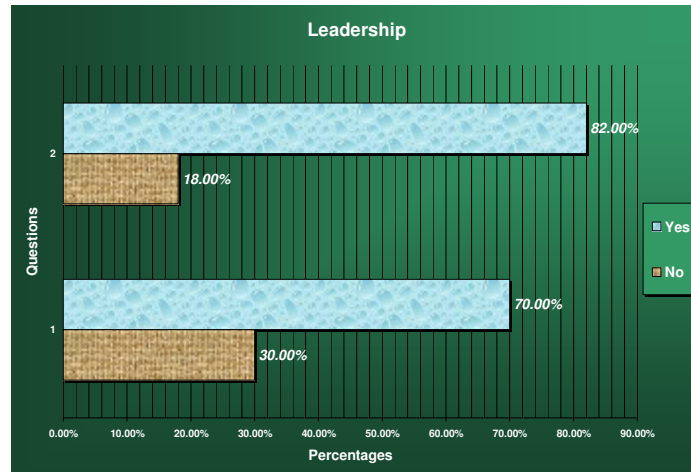


Figure 12: Importance of Leadership

Question (1): Is the leadership of the Peace Corps Administration crucial for the success and sustainability of environmental programs in the FSM and Palau?

*Question (2): Is the leadership of Host Country Nationals crucial in the success and sustainability of environmental programs in the FSM and Palau? *Reference to Survey Question 41 in Appendix B*

Since Peace Corps Administration had limited access to evaluate the progress of project implementation and program sustainability, the evaluation of these programs relied more heavily on the volunteer and their host agency counterparts or supervisors. Therefore volunteers were asked to determine if host agency leadership was crucial to program sustainability and to elaborate on the observed leadership style of their counterparts and/or supervisors.

At least 82% of volunteers believed that the leadership style of local agencies and/or communities was crucial to program sustainability. Volunteers were asked to elaborate on this observed leadership style. In some cases agency and/or community counterparts

were dedicated and shared the roles in project implementation with volunteers. However, in other cases there was either a lack of commitment and/or physical counterpart to take on leadership roles in the program's progress. The turnover rate within the agency also hindered the ability of programs to be sustained within the agency and surrounding communities. Successful volunteer-host agency partnerships were found in all agency sectors among assignments that lasted for only the two year terms and within two of the extended assignments. In conclusion, when counterparts served a committed partnership with volunteers to implement projects, they were more likely to be sustained beyond the term of the volunteer.

The final three questions in this portion of the survey consisted of open-ended responses to evaluate how volunteers measured sustainable progress of their programs in the community. Since these programs incorporated community outreach, and Peace Corps current focus is in community based programs, the results could be included in the list of program improvement areas. Results of an evaluation of responses to these three questions are presented below.

Volunteers determined that sustainable progress in community outreach and environmental education projects was attributed to the following list of qualities:

- Through eco-tourism, by relating the environment to money as an incentive to participate in conservation;
- By integrating cultural resource management with natural resources;

- By increasing the communication pathway between the traditional leaders and community elders with the younger generations;
- By avoiding projects that require large start up funds;
- By educating marine resource conservation and management at the family or community village level;
- By having dedicated community outreach counterparts to translate information to their local communities; and
- By providing scholarship and internship opportunities for students.

4.2.4 Part 5: Program Relevance Survey Results

This portion of the survey was evaluated to determine whether external factors such as environmental sector support, environmental policy, economic, and social developments affected the ability for volunteers to implement marine resource management under their developed programs from the agency level. Volunteers were also asked to determine what level the community was integrated into their programs outside the scope of agency.

Volunteers in both programs responded to 19 questions in this part of the survey. Twelve of these questions were comprised of open- and closed-ended responses. These questions were utilized to determine if and to what level both programs were relevant in addressing resource management issues in the FSM and Palau based on external factors. The remaining 7 questions covered topics related to whether the program intent was compatible with Micronesian culture and applicable in its culture and society. These seven questions along with all other questions pertaining to program intent “purpose and

goals” in the previous parts of this survey were evaluated together at the end of the results for Part 4. Results of an evaluation of responses to the first twelve questions are presented below.

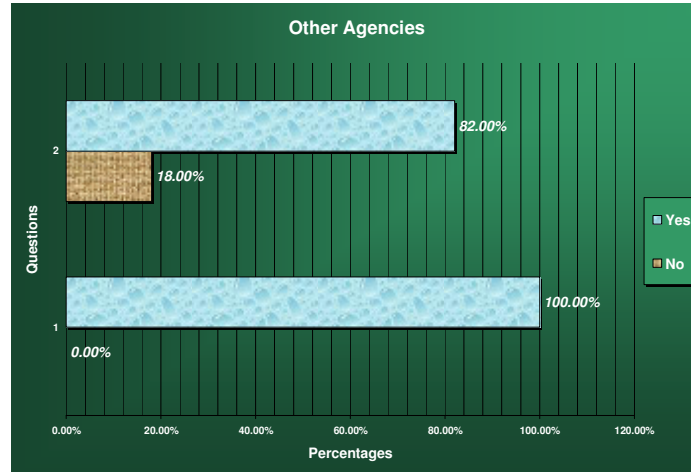


Figure 13: Environmental Sector Representation

Question (1): Are there other environmental agencies that address environmental concerns where you served?

Question (2): In your opinion, were they successful in implementing sustainable environmental programs in the FSM and Palau?

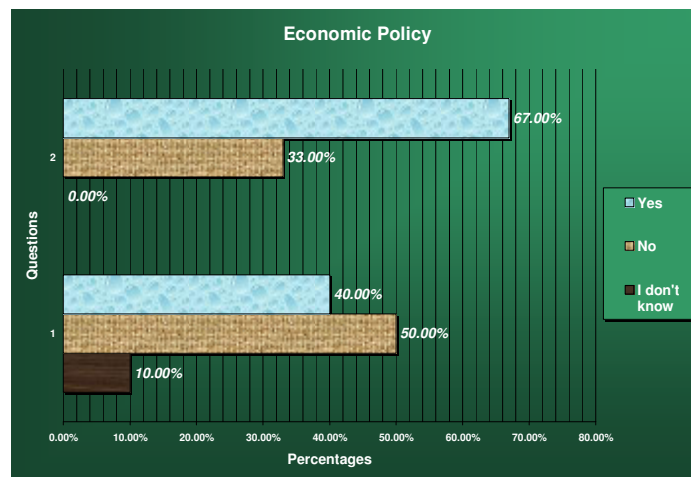


Figure 14: Responses to Environmental Policy

Question (1): Is there strong environmental policy where you served?

Question (2): If not, did this hinder the success of implementing environmental protection with your host agency?

In addition to the agencies that the Peace Corps had partnerships with, all volunteers responded that there were other environmental organizations working on resource management challenges facing the FSM and Palau. At least 81% of volunteers determined that these other organizations were successful in implementing management practices in a sustainable manner. Volunteers were asked to elaborate on this success. They suggested that other agencies had lower employee turn over rates with greater community integration in place to address these challenges.

One-half of volunteers also agreed that FSM and Palau lacks sufficient environmental policy and that it hindered the success of implementing environmental protection in the FSM and Palau. One volunteer worked on a marine resource management policy that still has not been approved due to the lack of traditional leadership support. It was previously determined during project implementation challenges that even agency employees and counterparts were not enforcing and abusing what little regulations did exist to protect marine resources such as sea turtle and fish gender and size requirements.

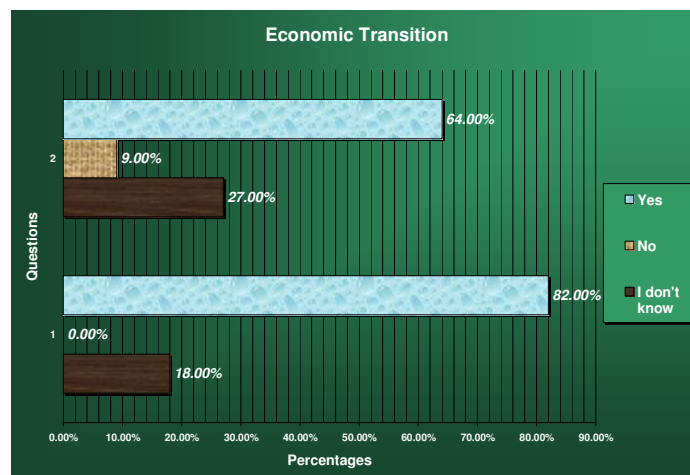


Figure 15: Economic Developments in FSM and Palau

Question (1): In your opinion, does the economic transition in the FSM and Palau have a potential negative impact on the success of environmental outreach (i.e. market economy, advanced technology)?

Question (2): In your opinion, does the economic transition in the FSM and Palau have a potential positive impact on the success of environmental outreach (i.e. market economy, advanced technology)?

A majority of volunteers agreed that the transition of FSM economy from subsistent living to market economy had both negative and positive impacts. Volunteers were asked to elaborate on both of these negative and positive impacts. Negative impacts included the continued dredging of coral for building materials, road and infrastructure development, increased export trade, over-exploitation of resources with modern fishing tools, and corruption of government. However, some communities were said to be setting positive examples to clean up their environment to preserve bio-diversity for their growing eco-tourism industry.

There were also external factors that impacted the ability of Peace Corps to implement resource management programs at the agency level. When asked if community members were integrated into and/or implemented projects with their agency to increase external outreach, 40% of volunteers either responded “no” or did not even know. In conclusion, volunteers determined that there were many internal and external challenges in implementing projects at the agency level throughout this survey analysis (grant funds, law enforcement, policy, and available counterparts). Volunteers also determined that their greatest success was in community outreach and education projects, but these projects were limited. The Peace Corps shift to consolidate programs into the “community based” sector with secondary projects in resource management at “community managed” level was a logical decision.

A total of 18 question responses were collected from Sections 2 thru 5 to determine the intent or “purpose and goals” of both program was relevant during pre-service training, project implementation, with local agencies and communities for long term sustainability. This evaluation was important to understand if the evaluated Peace Corps programs were compatible with Micronesian culture and applicable to its developing economy and society. Results of an evaluation of responses to these eighteen questions are provided below.

To review, the MRCD Program purpose was to increase capacities of host agencies in maintaining marine resource-based economic opportunities while providing training in business planning and operations. Volunteers in the MRCD Program were placed in government, non government (NGO), and academic institutions to implement projects under the following goals:

- *Goal 1: Assist the Host Agency with the development of the skills needed in coastal management areas, in order the improve the utilization and management of natural resources; and*
- *Goal 2: Establish income generating aquaculture projects.*

The CBEMP Program purpose was to integrate traditional and non-traditional resource management systems within environmental management institutions, local government operations, and within the community. Volunteers in the CBEMP Program were also placed in government and NGOs to implement projects under the following four part goal:

- *Goal 1: In collaboration with local communities, develop coral reef survey and monitoring techniques; collecting existing traditional conservation practices and storing data into a central database; researching eco-tourism opportunities; and producing educational materials and teaching curricula.*

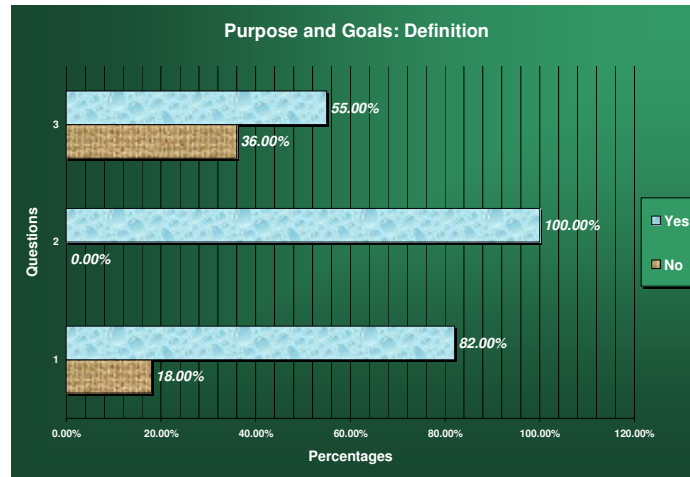


Figure 16: Purpose and Goals

Question (1): Were the purpose and goal(s) of the program that you served in clearly defined?

Question (2): Did the host agency that you worked with understand the purpose of the Peace Corps Program that you served under?

Question (3): In your opinion, did the members of the community that you resided in while serving in the Peace Corps understand the purpose of the program that you worked on with your host agency?

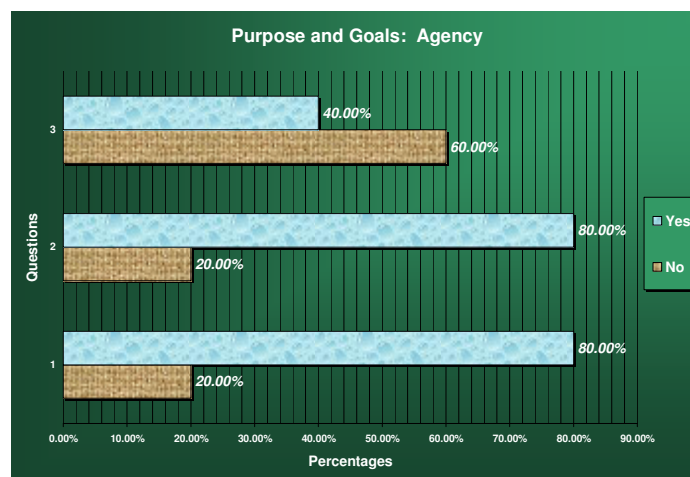


Figure 17: Purpose and Goals (cont.)

Question (1): Did the host agency that you worked with have the capacity (human and financial resources) to implement the goals of the program that you served under?

Question (2): Did the projects overall successfully address the purpose and goals of the program that you served under?

Question (3): In your opinion, did you feel like the overall purpose and goals of the program that you worked on were sustained with your host agency?

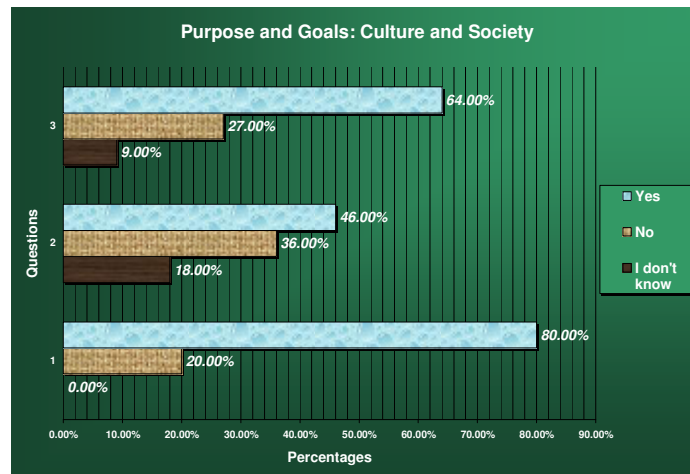


Figure 18: Purpose and Goals (cont.)

Question (1): Did you think that your program's goals were relevant in addressing environmental management issues where you served?

Question (2): Do you think that the goals of the program were feasible in the culture and society that you served in?

Question (3): Were the goals of the program integrated and implemented by community members in addition to the Peace Corps and the host agency?

The 18 questions were grouped into the following 3 graphs to evaluate the program intent to be compatible with Micronesian culture and applicable to its communities:

- clearly defined purpose and goals for volunteer and agency to implement projects and to outreach into community
- provide the resources and capacity to implement projects, address relevant marine resource management issues in FSM and Palau, and show sustainable progress

- feasible in traditional culture; applicable to developing society, adequately integrated and implemented by members of community

It was determined by 50% or more, in the first two graphs that volunteers agreed both programs had clearly defined purpose and its goals for all stakeholders involved. They were supported with adequate resources and capacity. They addressed marine resource management concerns in the FSM and Palau. However, less than 50% of volunteers determined that the purpose of the program and its goals were sustainable with host agency.

Additionally, less than 50% of volunteers determined in the third graph that the purpose and goals were applicable to traditional culture and their social developments from the agency level. This might explain why at least 40% of volunteers determined that there was not an adequate integration of the community into these projects. As well, there were not many cases where communities assisted with implementing the projects within their villages. This may also be a determination as to why the purpose and goals were not sustained with the agency and why the Peace Corps shifted its focus into the community sector. Volunteers elaborated that like many developing nations, Micronesians understand conservation and management of resources, but balancing resource protection with economic growth fell lower on the list of importance. Some felt that the purpose and goals of these programs were a little ambitious and self imposed for their host agencies to implement when there was a lack of education and community integration.

4.2.5 Part 6: Recommendations Survey Results

Volunteers in both programs responded to 13 questions in this part of the survey.

These questions allowed volunteers to offer insight into areas of improvement for marine resource education and management. It was determined that Peace Corps should continue secondary projects in education and management at the community level. Results of an evaluation of responses to these questions are presented below.

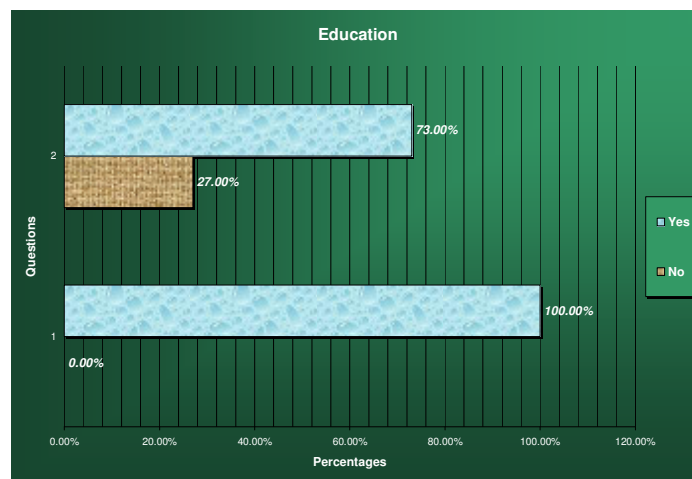


Figure 19: Educational Outreach

Question (1): The current programs in the Peace Corps FSM and Palau have been narrowed down to ESL teachers with environmental and health outreach as requested. Do you think that the FSM and Palau would benefit from environmental education volunteers in the academics?

Question (2): Did your position require you to teach or perform education outreach?

All volunteers agreed that the FSM and Palau would benefit from including environmental education into current Peace Corps programs. At least 70% of these volunteers played a role in environmental education and outreach. These roles were some of their greatest accomplishments during their project implementation. Volunteers were asked to determine what curriculum should be addressed. Many volunteers suggested that education should focus on the general background of marine ecosystems at the

primary schooling level, build on existing cultural knowledge and practices and incorporate its surrounding communities.

Volunteers also suggested that all the following topics should be addressed and improved in order to implement secondary projects in marine resource management:

- Pre-service training;
- Project implementation;
- Program sustainability;
- Relevance to issues facing FSM and Palau;
- Leadership;
- Economic development; and
- Community involvement.

The greatest emphasis was determined to be in community involvement as shown in Figure 20 below.

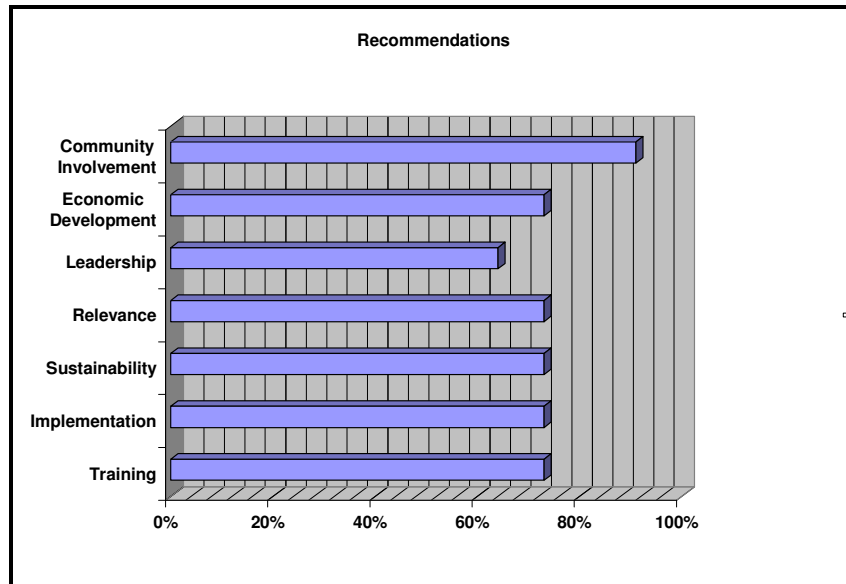


Figure 20: Improvement Areas

4.2.6 Part 7: Additional Comments Survey Results

The last part of the survey was an open ended question asking volunteers to add any additional thoughts about the research topic or experience as a volunteer in the US Peace Corps. These responses suggested that Peace Corps should continue marine resource education and outreach in the FSM and Palau for the benefit of both Micronesians and Americans. Some of these volunteers continued to stay within this region as full time employees with local agencies to assist with the marine resource education, management and research. Others have continued their education in universities worldwide participating in research to assist Micronesia with these challenges. Others have since then returned to work in US based government, non government, and academic sectors. These volunteers have attributed their success in addressing environmental challenges in the US to the technical and cultural experiences they received as Peace Corps in Micronesia.

4.3 Recommended List of Improvement Areas in Marine Resource Management and Education Derived from the Results of the Survey Evaluation

A list of improvement areas was developed from suggestions made by volunteers throughout the survey evaluation. The list was grouped into 6 improvement areas including marine resource education and management. These improvement areas were identified to support the evaluation of objective 2 in this MP. The following list could provide insight for Peace Corps in choosing secondary projects in marine resource education and management. These projects should focus on the following areas of improvements:

- Teaching students marine ecology at the primary education level.
- Practicing management of marine resources in community-based areas.
- Integrating traditional and cultural practices in management.
- Increasing the level of commitment from Peace Corps Administration to program goals and individual assignments.
- Assertive community leadership that motivates local program counterparts to be more dedicated to implementing program goals.
- Decreasing the reliance of volunteer ability to obtain grant funding.

4.4 Results from Comparison of Recommended Improvement Areas to Goals of Current “Community-Based” MPA Peace Corps Project in Yap, FSM

To satisfy the evaluation of objective 2, the list above was then compared to the goals of a current Peace Corps assignment in Yap, FSM. This project emphasizes its primary focus on elementary ESL education with secondary projects assisting the local

community with the management of its Marine Protected Area. To review, the goals of the MPA developed in Yap, FSM are listed below:

- The community determined and agreed to develop a “no take zone”, This restricted all fishing from a designated aquatic area in the village;
- Community members committed to receive training and agreed to monitor the resources in the “no take zone” over a two year period with assistance from partnership agencies and the Peace Corps volunteer;
- The community formed partnerships with local hotels to set up paid cultural and ecosystem tours in the village and MPA. The community provided a local guide to conduct the tours and promoted traditional practices;
- The income generated from user fees was utilized for upkeep of the management area and village. It also compensated community members for loss of fishing opportunities;
- Community members committed to restore and promote traditional harvesting practices (i.e. bamboo and stone fish traps);
- The Peace Corps provided an education volunteer to promote marine conservation and management in the community and to elementary students in the village; and
- Local agencies assisted with technical training and grant funding.

The results of the comparison determined that some of the recommended list of improvement areas derived from the results of the volunteer survey has been addressed in at least one of Peace Corps current projects in the FSM. To satisfy the evaluation of the

third objective in this MP, it could be feasible for the Peace Corps to expand “community-based” MPA assignments in the FSM and Palau that address these improved areas in marine resource management and education. The results of the comparison are provided in Table 3 below.

Table 3: The Recommended List of Improvement Areas Compared to Peace Corps Current Efforts in “Community Based” Marine Resource Projects in Yap, FSM

<i>Former Volunteer Improvement Areas List</i>	<i>Has This Area Improved? (yes/no)</i>	<i>Current MPA assignment in Yap, FSM</i>
Primary level ESL environmental education with general emphasis on marine ecology	Yes	This is the primary focus of this project
Community based (managed)	Yes	Members of the community giving tours, conducting resource monitoring, building traditional practice tools
Culturally Integrated	Yes	Through cultural tours and promotion of traditional resource practices
Dedicated local leadership and/or counterparts	Yes	Management plan was developed and will be implemented by community leaders and residents
Peace Corps Administration leadership - communication and commitment to personal projects (from training to completion of service)	Not Determined	Not determined from this research, although site visits in the past from Peace Corps administration are limited
Not heavily grant dependent on volunteer	Possibly	Although the volunteer is asked to develop grants to support funding, financial assistance has been established for this project and it is income generating for the community through paid cultural and eco tours

SECTION 5: CONCLUSION

Common challenges were identified in building capacity at the FSM and Palau agency level for Peace Corps volunteers in both marine resource programs evaluated. These challenges occurred at the pre-service training, project implementation, and program sustainability levels. Peace Corps Administration and local agency leadership was a challenge identified at all three levels. The communication from Peace Corps staff and the dedication from local agency counterparts were crucial to program success.

Volunteer survey responses informed a list of recommendations to address six improvement areas for the Peace Corps to consider in addressing challenges to marine resource education and management. These six improvement areas should focus on:

- Teaching students marine ecology at the primary education level.
- Practicing management of marine resources in community-based areas.
- Integrating traditional and cultural practices in management.
- Increasing the level of commitment from Peace Corps Administration to program goals and individual assignments.
- Assertive community leadership that motivates local program counterparts to be more dedicated to implementing program goals.
- Decreasing the reliance of volunteer ability to obtain grant funding.

It was determined that there were many similarities between what volunteers recommended for improvements when compared to Peace Corps current focus in marine resource education and management as secondary projects. These similarities were based

on goals established for Peace Corps assistance in community based Marine Protected Areas (MPA). This comparison is reviewed below.

Table 3: The Recommended List of Improvement Areas Compared to Peace Corps Current Efforts in “Community Based” Marine Resource Projects in Yap, FSM

<i>Former Volunteer Improvement Areas List</i>	<i>Has This Area Improved? (yes/no)</i>	<i>Current MPA assignment in Yap, FSM</i>
Primary level ESL environmental education with general emphasis on marine ecology	Yes	This is the primary focus of this project
Community based (managed)	Yes	Members of the community giving tours, conducting resource monitoring, building traditional practice tools
Culturally Integrated	Yes	Through cultural tours and promotion of traditional resource practices
Dedicated local leadership and/or counterparts	Yes	Management plan was developed and will be implemented by community leaders and residents
Peace Corps Administration leadership - communication and commitment to personal projects (from training to completion of service)	Not Determined	Not determined from this research, although site visits in the past from Peace Corps administration are limited
Not heavily grant dependent on volunteer	Possibly	Although the volunteer is asked to develop grants to support funding, financial assistance has been established for this project and it is income generating for the community through paid cultural and eco tours

Additionally, it was determined that Peace Corps efforts to return to community based projects could assist with alleviating the distrust between government and local communities and their leaders. Community based projects could reduce the dependency

of the community on government to monitor and finance the management of marine resources. Education at the primary schooling and community level could also increase the possibility of compromise between government and traditional leaders in passing state and/or federal level resource policies. If it is determined that “no take” zone MPA will restore fisheries populations, additional communities might determine to volunteer portions of their reef to conduct such studies.

Having cultural and eco-tours within one’s community also increases the potential to maintain clean environment and make decisions about certain developments around the forest and reefs. Communities that generate income in direct relation to their healthy environment properly dispose of trash, improve sanitation and water quality, exhibit cultural traditions and promote the use of local foods. They are also weary of accepting surrounding infrastructure developments and landscape changes that might alter the diversity of their ecosystems.

A list of additional MPA locations was identified from previous volunteer project assignments and presented below in Table 4. Should the MPA serve as locations for education and youth development under current Peace Corps program guidelines, they could also serve as potential secondary marine resource projects in the FSM and Palau.

Table 4: Additional MPA Site Locations

Island State or Nation	Community Based Marine Managed Area	Location	Type of projects that former volunteers worked on
Yap	<i>Yes</i>	*Riken Village MPA	Reef and fish surveys
Chuuk	<i>Yes</i>	Epinup MPA	Reefs and mangroves
Pohnpei	<i>Yes</i>	Lenger Island MPA	Reef, sea grass, turtle and grouper surveys
Kosrae	<i>Yes</i>	Lelu Conservation Area	Reefs, sea grass, mangroves
Palau	<i>Yes</i>	Ngemai Marine Conservation Area (MCA) Eblil Channel MCA Ngeruangel Atoll Reserve Ngederrak Reef MPA	Sea cucumber, grouper, reef, sea grass, and sea turtle surveys

*Volunteer currently serving in at this location

It was also determined from the results in project implementation that volunteers in the MRCD and CBEMP Programs had success in implementing community outreach and education. However, educational resources in Micronesia can be limited. Since current volunteers continue to liaison with local agencies for technical and educational support, a list of educational materials obtained from previous outreach projects was constructed. This list could provide current volunteers involved in marine resource projects with exercises to educate the community and support elementary school curriculum. This list is presented below in Table 5.

Table 5: Education Outreach Projects and Materials obtained from MRCD and CBEMP Assignments

Location	Project Type	Project Description
Yap, FSM	1. Community Outreach and Primary Education 2. Primary Education 3. Community Outreach and Primary Education	1. Statewide Environmental Campaign 2. UN World Environment Day Speech Contest 3. Environmental Newsletter – with local artist drawings and learning activities 4. Reef Check – coral reef resource database
Chuuk, FSM	NA	NA
Pohnpei, FSM	1. Primary Education 2. Community Outreach and Primary Education	1. UN World Environment Day Speech Contest 2. Statewide Environmental Campaign
Kosrae, FSM	1. Primary Education	1. Conservation Leadership Workshop
Palau	1. Primary Education 2. Community Outreach 3. Community Outreach	1. Art and Tides Calendar 2. Palau Nature Facts 3. Reef Check – coral reef monitoring resource database

*The names of agencies involved with these community outreach and primary education projects were not identified.

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APPENDIX A

MICRONESIAN HISTORY

Micronesians are most likely the ancestors from Indonesia and Philippines who migrated by way of outrigger canoes to Yap between 4,000 and 2,000 BC and Rock Islands, Palau in 1000 BC. Sometime later, migrants from Melanesia worked their way from the eastern side of the Pacific to Kosrae, Pohnpei, and Chuuk. Early Micronesians were expert ocean navigators, had impressive wood carvings and rich oral history that was largely destroyed by European invasion in the 1800s. British and American whalers arrived in the FSM in the early 1800s harassing, killing, and spreading disease reducing some of the islands populations between 50 and 95%. In the late 1800s, Spanish missionaries followed the whalers imposing western clothing, language, and laws along with Christianity.



Figure 21: Early Micronesian Culture⁹

The Germans purchased the islands from the Spanish in 1899 following the Spanish-American War and began turning portions of both Palau and FSM into coconut plantations. For several years, islanders were transporting from villages to plantations for work. Germany fled Micronesia at the beginning of WWI, and Japan began occupation of both Palau and FSM from 1914 until the end of WWII. During Japanese occupation Micronesian culture underwent its greatest transformation. Japanese administrative centers were developed across the islands with infrastructure for Buddhist temples, geisha houses, and large scale agriculture production. In Koror, Palau, roads were paved, and electricity and piped water was installed. Both nations became outnumbered by Japanese. Islanders were forced to speak Japanese language and were treated like second citizens. The social infrastructure of the island culture shifted to the needs of the Japanese.

⁹ www.visit-fsm.org/visitors/history.html
www.tradersridge.com/island-general.php

Traditional Micronesian power was lost in the time of Japanese occupation during World War II. US retaliated against Japan after the bombing of Pearl Harbor in 1941, and gained occupation of Micronesia from the Japanese in 1945. However, this was at the expense of several Micronesian lives lost and total infrastructure destruction. The Micronesian islands then became a United Nations Trust Territory after the war was over. Although, traditional power was restored and a new democratic reform was developed, Micronesians wanted political independence and financial assistance to rebuild its infrastructure and develop its economy. The United States wanted to maintain good relations with this strategically significant region of the Pacific, and helped four districts of the Trust Territory ratify a constitution to become the Federated States of Micronesia (FSM) in 1978.



*Figure 22: World War II History in Micronesia*¹⁰

The Federated States of Micronesia located in the Western Pacific covers the entire region of the Carolinian archipelago. The four states (Kosrae, Pohnpei, Chuuk, and Yap) consist of 607 islands covering 3,037 square miles (271 sq mi of land and 2,766 sq mi of lagoons). A Compact of Free Association (CPA) was signed in 1979 and implemented in 1986 between the United States and the newly formed FSM. Under the CPA the United States provided \$3 billion dollars in financial assistance (grant funds) between the years 1986 and 2001 in exchange of providing military and security defense for the nation. The compact was amended in 2003, to provide \$100 million in direct assistance for a 20 year period to 2023. The grant funds were agreed to be distributed to the education, health, infrastructure, public sector capacity building, private sector development, and the environment.

¹⁰ http://thorfinn.net/truk_lagoon_history.html
<http://web.singnet.com.sg/~tonym/islands.html>



Figure 23: Map of Federated States of Micronesia¹¹

Palau (also known as Belau) located on the western extremities of Micronesia in the Carolinian archipelago elected not to join the FSM in 1978 and became its own republic in 1981. It then signed its CPA with United States in 1982, but did not gain independence until the compact went into affect in 1994. Under Palau’s CPA, US retains rights to one third of Palauan territory. It is responsible for Palau’s military defense in exchange of a \$450 million financial package for the first 15 years of the 50 years of the compact. The Republic of Palau consists of 8 principal islands with more than 250 smaller ones covering a total land mass of 153.2 square miles.¹²

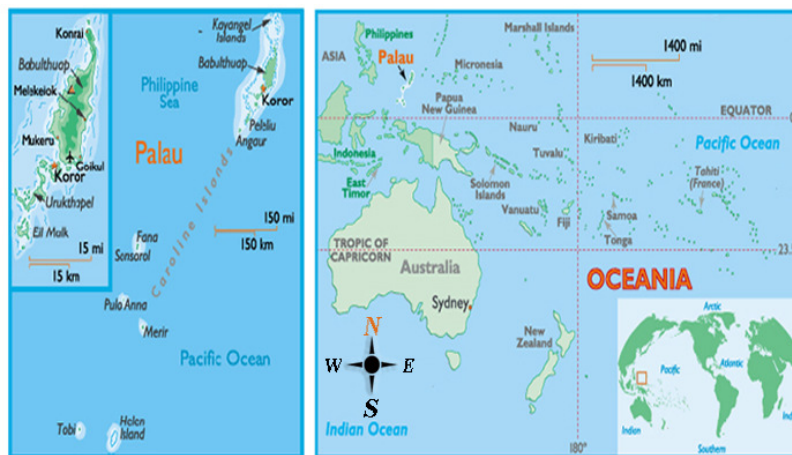


Figure 24: Map of Republic of Palau¹³

¹¹ <http://www.cdc.gov/DIABETES/states/micro.htm>

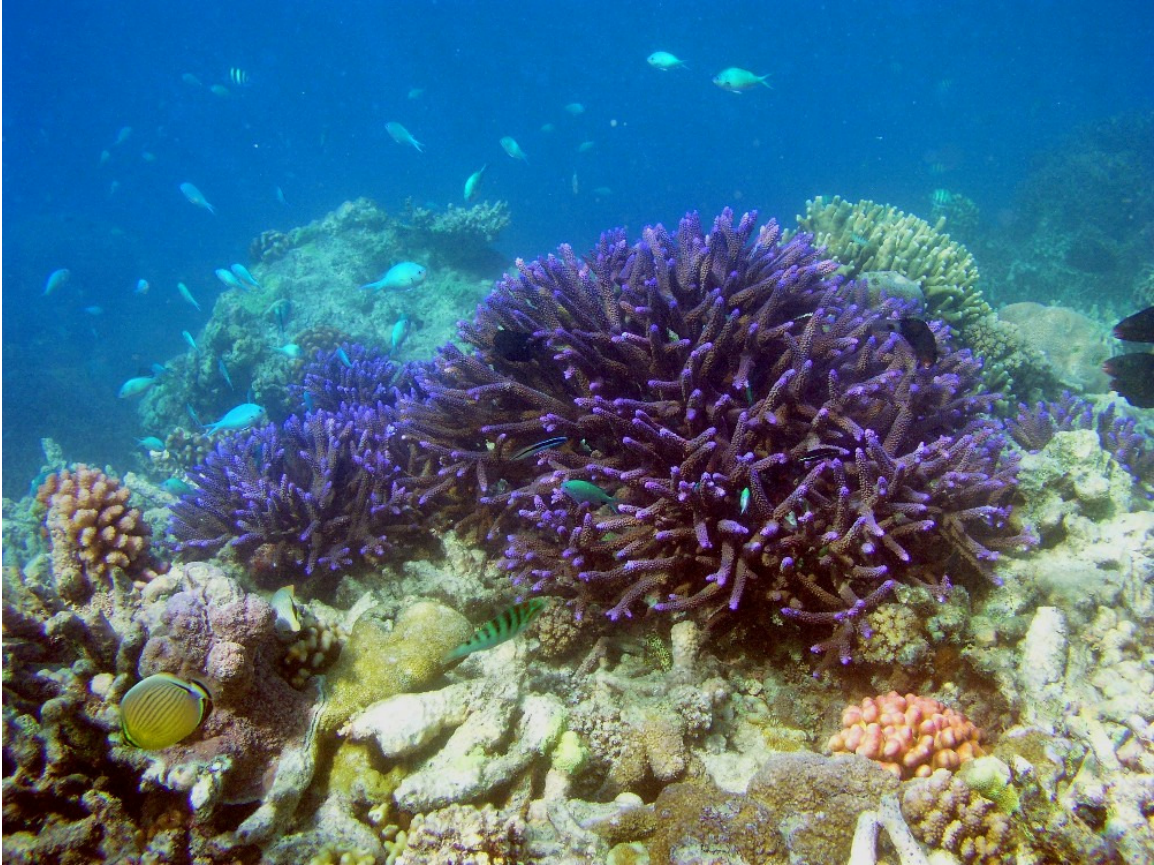
¹² <http://www.lonelyplanet.com/worldguide/destinations/pacific/federated-states-of-micronesia>
<http://www.lonelyplanet.com/worldguide/destinations/pacific/palau>

¹³ www.southtravels.com/pacific/palau/map.html

APPENDIX B

**RIKEN VILLAGE MARINE PROTECTED
AREA PLAN**

**Implementation of a Management Plan for the Riken
Village Marine Protected Area**



**Submitted March 2006
By
Riken Community**

General Information:

Project Name: Implementation of a Management Plan for the Riken Village
Marine Protected Area

Project Type: Monitoring and Analysis

Project Site: Riken Village, Gagil Municipality, Yap State, Federated States of
Micronesia

Proponents: Riken Village
Contact: Cyprian Mugunbey, Community Leader and Organizer
PO Box 400
Colonia, Yap, FSM 96943
e-mail: cmugunbey@mail.fm

Authorized Rep: Cyprian Mugunbey, Community Leader
Thomas Gilywoch, Community Organizer

Community: Consists of 9 households with an estimated 45 members

Project Partners: Marine Resources Management Division, International Waters
Project, Yap State Environmental Protection Agency

Cooperating Agencies:

United States Peace Corps
Yap State Department of Education

Yap Visitors Bureau

Project Period: March 2007-2009

Start Up Date: March 2007

Total Project Cost: \$36,860.50

Amount Requested for funding: \$24,848.00

1. Rationale:

Yap is one of the four component states of the Federated States of Micronesia (FSM). It is made up of four closely related high islands: Yap, Tamil-Gagil, Maap, and Rumung, which are together known as Wa'ab or "Yap proper". The Riken Marine Protected Area (MPA) is located alongside Goofnuw channel between the municipalities of Gagil and Maap.

The problem of a diminishing fish stock directly affects the livelihood of all Riken Villagers as most households rely heavily on fish as a main source of food. Riken Village elders in particular have observed a substantial decrease in fish size and abundance within recent years. According to the Debriefing of Socio-Economic PROCFish-C Survey of Yap in March of 2006, Riken has the lowest household expenditure and source of income of all sites surveyed, at \$2500 per year. On average, fish caught within the community is mostly non-commercial and often given as gifts. Fisheries play an important role for subsistence rather than commercial purposes. A shift from a traditionally subsistence oriented lifestyle to a cash based one has affected Riken's fish stock, and thus its livelihood. The Riken Community has given substantial effort to try and curb current practices by establishing a No Take zone while encouraging eco-friendly, traditional fishing traps in waters surrounding the MPA.

Riken is proposing a management plan that delicately couples both traditional and modern knowledge to best address an alarming decline of oceanic resources. With an effective management plan, the community envisions a locally managed and monitored, sustainable MPA that conserves the marine assets for future generations while simultaneously providing income generating opportunities. The overall livelihood of the village will increase, not only from an increase of fish size and abundance, but by the tasks the MPA will provide and income it will generate. The community will also benefit from educational programs focused on protecting the valuable resources in support of this vital community effort. Funding to implement the proposed management plan will enable local individuals to monitor, survey, and analyze data while also promoting projects that generate financial support for the village.

To initially assess the pressure on their depleted fish stock, Riken hosted an ecological baseline assessment performed by the Palau International Coral Reef Center (PICRC) in 2005. One main goal of the PICRC assessment was to "support the involvement of the community in baseline assessment and monitoring work". To follow up on PICRC's proposed methods, the Riken Village Mariners (see management plan) took a Reef Check course in 2004 to learn proper monitoring methods. Since this workshop, there has been limited opportunity to continue practicing and utilizing methods learned. Riken has since hosted two follow up surveys to compare with the baseline PICRC one, but the methods used were not Reef Check and thus were not appropriate practice for the community members involved. Villagers have been present at all surveys to observe techniques used and locations assessed. The proposed management plan emphasizes the importance of gathering sound scientific data over an extended period to properly review how beneficial the MPA is to the community.

2. Purpose:

By establishing and monitoring the no-take zone for two additional years, it is hoped that the recruitment and spill over effects will positively impact the livelihood of Riken Fisherman by providing more sustenance for their community. The monitoring and survey portion of the plan will assess whether the MPA is actually working, and/or what actions may need to be taken to address any problems. The promotion of traditional fishing methods is of vital importance to the village. Community members agree that traditional fishing practices are the best method to conserve valuable ocean resources for future generations. Riken hopes to establish more traditional structures to encourage local conservation throughout the island and among its youth. Throughout the project, emphasis will be placed on traditional knowledge.

Funding will provide technical skills for the Riken Village Mariners for monitoring; help establish traditional structures, hold awareness activities during Yap Day, aid in establishing sustainable tourism activities, and more. The fisherman involved in monitoring will benefit from increased scientific knowledge of their resources while also benefiting from the obvious advantages of increased fish stock supplied from the MPA. The awareness activities throughout Yap Day will further the understanding of MPAs and traditional conservation around the island. The eco tours will be guided by varying members of the community. This will increase local pride and promote the MPA as a conservation attraction, thus preventing the need for fisherman to over fish for income.

3. Community Ownership

Riken Village has proven to be an example of proactive action among other proposed MPA sites. The community has held numerous meetings over the years to enforce the no-take reserve and discuss its advantages. This proposal has been reviewed and adopted by all necessary village elders and chiefs. The role each family will play has been identified and assigned.

Implementation of the project will be organized so there will be small objectives necessary to reach the overall goal. This timely organization will ensure villagers maintain enthusiasm and are continuously engaged. Community members will have a schedule to be involved in the tours, while the monitoring plan will be less frequent and will be performed by the Riken Village Mariners. Monthly meetings will be held to assign tasks to villagers by community leaders, including workshops to construct traditional fishing structures. Reports of the surveys will always be submitted at meetings and any needed amendments made.

Phase II of the project highlights the “phasing out” mechanisms. After one year there should be a substantial fund created by user fees from dive shops, a percentage of tours going to a community fund, and eventually from stock farms. The sustainable fund will come primarily from the first two activities, as the creation of stock farms (such as cucumber or clam) is not envisioned to be income generating by the end of this project, but should be established.

4. Project Description:

The goal of the Riken Village Marine Protected Area is to increase the livelihood of the community by engaging in the following objectives of the management plan:

- Promote traditional fishing concepts and establish structures.
- Increase awareness of the community on the importance of conservation and protection of the area. This will be done through the elementary school and at community meetings.
- Implementing a regular monitoring*/ surveying program incorporating both local community members and outside agencies to collect sound data and measure effectiveness of MPA
- Establish income-generating activities within Riken Village to secure self sustainability of the project.

II. Timetable

III. Project Management:

The Project, including fund dispersal, will be managed by the two coordinators, Cyprian Mugunbey and Thomas Gilywoch. Riken Village currently has a US Peace Corps, Stevie Freeman, working in conjunction with the MPA and Gagil Elementary School. She will also aid in project activities until her contract is over, whereas a new volunteer may replace her position. Although Cyprian Mugunbey and Thomas Gilywoch are acting coordinators, the entire village will take part in accountability and the success of project activities.

Direct project partners include Marine Resources Management Division (MRMD), Yap State Environmental Protection Agency (EPA), and the International Waters Project (IWP). MRMD and EPA will initially hold a “refresher” course on Reef Check methodology and invertebrate taxonomy. This will be held in March of 2007. These partners will then accompany the Riken Village Mariners on site to supervise and help with the beginning surveys as needed until skills are adequately transferred. Once all partners are satisfied with the local members surveying skills, Reef Check may be carried onward without their supervision and all results will then be submitted to EPA and MRMD within two weeks after survey is completed. The IWPs focus is on community action programs to increase understanding of MPAs. Riken members will accompany IWP representatives to awareness meetings throughout the island. Survey results will be submitted as requested.

Project moneys will be maintained in a separate Riken Village fund from the one already established, to differentiate from incoming revenues. The two project coordinators will be the only individuals able to withdraw funds, although bank statements will be available to all village members at meetings. This is to ensure accountability and ensure community input.

Other Considerations:

A. Of the four management goals, sustainability by generating income is vitally important both economically and ecologically speaking. As it is imperative that all income generation related to the areas of biological significance have no destructive impacts, plans for eco-friendly village tours incorporating the MPA have been

developed. In addition to tours, user fees for dive shops and phase two stock farms will bring much needed, low environmental impact income. The Riken woman's group will be influential in the design and implementation of the Riken Culture Tours. The village women's role in the tours will include preparing food for guests, demonstrating local lei making and weaving, and to explaining the role of the taro patch within local families. Any woman involved in the tours will be compensated for her assistance. They are also currently planning to repair an ancient stone path for guests.

C. The Riken community itself will receive direct benefits both financially and through conservation education. The U.S. Peace Corps volunteer working in cooperation with the MPA and Gagil Elementary School will incorporate benefits of marine protection into her curriculum and host field trips to the MPA for Gagil municipality children. Riken is willing to host field trips from other municipalities throughout Yap State. Village representatives have already begun discussions with other interested villages to increase awareness on the benefits of establishing MPAs. Meetings have been held with both Maap and Rumong, which have resulted in Maap establishing a no-take zone. It is planned to perform a local legend, Tu'nmul, (that originated in Riken) at the elementary graduation and Yap Day 2007. These performances would indirectly benefit those who see it through preservation education.

Proponent Information:

The Village of Riken is one of the seventeen (17) villages that make up the municipality of Gagil, a geographical and political sub-division of the State of Yap. Customarily, Riken, like other villages on Yap operates and functions autonomously with a council of elders sitting as the decision-making forum with two members, by virtue of their family estates in the village act as village chiefs. One of the two high chiefs is the "sitting" chief, though being the highest in rank, only affirms and authorizes what needs to be done, with respect to the welfare of the whole community. The second acts as a facilitator and coordinator for activities relating to the affairs of the village. Both the two chiefs sit as members of the Gagil Municipal Council. The Gagil Municipal Council sends a representative on one of the two state wide councils of chiefs. The Councils of Pilung and Tamol, with mandates to perform those functions concerning customs and traditions, together, act as a fourth branch of the State Government of Yap. The village of Riken aims to advance itself by seeking to protect and manage in a sustainable fashion the limited resources that village has and while optimizing whatever benefits that may derive from such resources. Because the marine areas of Riken have always provided for the village livelihood, the present leadership wishes to ensure that such resources are protected and managed to a stage that will sustain the wellbeing of future generations of the village.

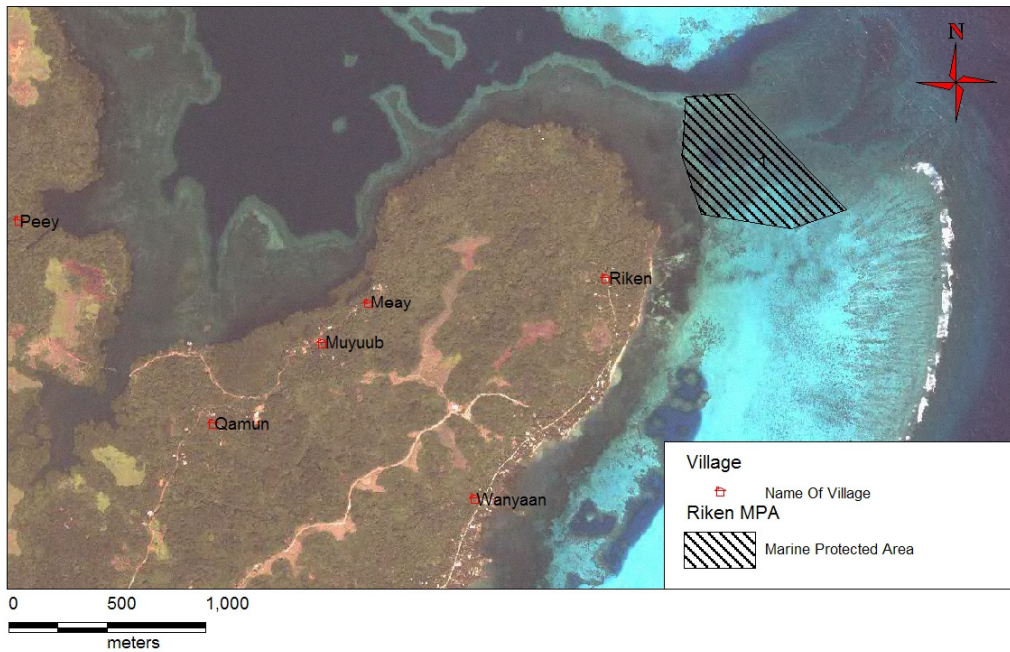
Because the village has always been small with an insignificant population size, most of its needs were always addressed in conjunction with those of the neighboring villages. But only in the past few years has the village of Riken actively participated in a number of projects which directly dealt with the needs of the village residents. The village participated in the extension of electricity and water supply, the building and installation of roads and culverts, HPO sponsored projects to restore and preserve cultural sites, and more recently with the implementation of FEMA funded projects, under the auspices of the state Planning Office and the Department of Public Works. All of these

projects were done completely and satisfactorily as evidenced by the availability of such facilities within the community as of today.

Attachments:

Map of MPA site, Management Plan, Monitoring Plan

Location of Riken MPA in Relation to Gagil



APPENDIX C
VOLUNTEER SURVEY

Part 1: Volunteer Consent

My name is Kimberly Clements; I am a student in the Duke University Nicholas School for Earth Science and the Environment in the Environmental Leadership/Master of Environmental Management Program. I am conducting research to evaluate the environmental programs that Peace Corps volunteers served under in the Federated States of Micronesia and Republic of Palau during the years 1999 to 2003.

The purpose of my research is to determine if there is interest in re-establishing Peace Corps environmental programs in Federated States of Micronesia and Republic of Palau. The Peace Corps work in the FSM/Palau involved several programs over the past 40 years including a decade of environmental program management. The remaining environmental programs were phased out of Peace Corps FSM/Palau in 2006.

I am inviting you to complete an on-line survey. The survey will examine the purpose and goals of your program and the projects that were implemented with host agency counterparts, and gather your opinions on the sustainability and relevancy of the program after 2 years of reflection. The final portion of the survey will give you an opportunity to offer recommendations as to how and where to re-build an environmental program in the Peace Corps FSM/Palau if you determine there is viable interest from your point of view. The survey will take at least one hour to complete, but feel free to take as much time as you need. Your participation in this survey is voluntary and you may withdraw at any time or choose not to answer every question.

Please SAVE the URL link that is provided for you in your email message. This is the top link. If you choose not to participate the bottom link will block you from participating or receiving any additional messages. The top link will allow you to re-enter, save, and edit your responses as many times as needed. You do not need a username or password, just the link. In order to save work before exiting an incomplete survey, please click on the "Next" button option at the bottom of the current section that you are working in. When you return, it will resume where you have left off, but will save your previous work. This will allow you to revisit prior saved sections using the "Previous" button option to review and edit. Once you have completed each section of the survey, you will click "Done" located in the final section and all information should be saved. You should have an option to return, review and edit after completing the survey by accessing the same URL if desired. Once you have completed the survey, it will be displayed to me for analyzing.

The information obtained from the research will be presented in a Master's Project written report and power point presentation for the Duke University DEL MEM Program. Your identification as a participant is indirect in this research and will remain confidential in the report. The questions are designed to respond to your former affiliation with the Peace Corps. Host agencies will not be identified however geographic location will be identified. If you feel that your indirect identity is at risk with your relationship with the Peace Corps and/or host agency, but would like continue to participate, a review of the research analysis will be submitted via email for your approval. The final report will be presented on campus at Duke University in May 2007, and the written draft will be filed in the Duke DEL MEM library. Recommendations if determined feasible will be

submitted to the US Peace Corps Headquarters in Washington D.C.

If you have any questions regarding this research, please contact me at: kymmiclements@yahoo.com or kdc7@duke.edu. If you have questions about being a research participant, you may contact the Chair of the Human Subjects Committee at Duke University at (919) 684-3030.

Part 2: Program Training

This section of the survey is set up to reflect on the type of program that volunteers served under and pre-service training. Here are the following purpose and goals that are from the Action Plan in 2000.

Marine Resources and Conservation Development Program

Purpose: To increase capacities of host agencies in maintaining marine resource-based economic opportunities while providing training in business planning and operations.

Goal 1: Assist the Host Agency with the development of this skills needed in coastal management areas, in order to improve the utilization and management of natural resources by the year 2000.

Goal 2: Establish income generating aquaculture projects by 2000

Capacity Building for Environment Management in the Pacific (CBEMP) Program

Purpose: to integrate traditional and non-traditional resource management systems within environmental management institutions, local government operations, and within the community

Goal 1: In collaboration with local communities, develop coral reef survey and monitoring techniques; collecting existing traditional conservation practices and storing data into a central database; researching eco-tourism opportunities; and producing educational materials and teaching curricula.

1. Were the purpose and goal(s) of the program that you served in clearly defined (yes/no)?
2. Please explain why or why not.
3. Did you receive adequate pre-service training to prepare you for your role in the program that you served in (yes/no)?
4. Please explain why or why not.
5. Did the host agency that you worked with understand the purpose of the Peace Corps Program that you served under (yes/no)?
6. Please explain why or why not.
7. Did the host agency that you worked with have the capacity (human and financial resources) to implement the goals of the program that you served under (yes/no)?
8. Did you receive training with your host agency post pre-service training (yes/no)?

9. If yes, did you think this continued training was crucial to implementing projects with your host agency (yes/no)?
10. If not, would additional training have been beneficial to project implementation (yes/no)?
11. What challenges did you face in the transition from pre-service training into your host agency placement in collaborating the purpose of the program and how to implement its goals?

Part 3: Project Implementation

This section of the survey covers questions related to volunteer-host agency implementation of projects

12. Where did you serve your Peace Corps term? (List all that applies- Chuuk, Kosrae, Pohnpei, Yap, Palau)
13. If you would like, please elaborate on the particular area in which you served.
14. Briefly list and describe the projects that you worked on with your host agency.
15. Did these projects overall successfully address the purpose of the program that you served under (yes/no)?
16. Did they support the goals (yes/no)?
17. What was your role in project implementation?
18. Did you have a counterpart (yes/no)?
19. If no, please explain why not.
20. If you had a counterpart(s), please describe what his/her or their roles were in project implementation?
21. Did you work efficiently with your counterpart on project implementation?
22. What challenges did you face during project implementation?
23. What accomplishments did you make with your host agency during project implementation?

Part 4: Project Sustainability

This section of the survey covers topics related to measuring program sustainability.

24. Did you serve your two-year term with the Peace Corps in your program (yes/no)?
25. If not, please explain why.
26. Did you stay with the same agency for your term (yes/no/transferred)?
27. If you transferred, please explain why.
28. Did you extend your service (yes/no/ how many years)?
29. If you extended, did you extend with the same host agency or transfer to another organization and/or island?
30. If you transferred to another agency or island, please elaborate why.
31. To your knowledge, was your position replaced with another volunteer when you completed your term (yes/no/ I don't know)?

32. If no, why not?
33. In your opinion, did you feel like the overall purpose of the program that you worked on was sustained with your host agency (yes/no)?
34. Please elaborate why or why not.
35. In your opinion, did you feel like the implementation of the goals was sustained with your host agency (yes/no)?
36. Please elaborate why or why not.
37. In your opinion, do you believe that the turn over rate of the Peace Corps organizational structure hinders the ability to implement sustainable environmental programs where you served (yes/no/I don't know)?
38. If yes, what recommendations would you make to increase continuity of these programs between the Peace Corps, volunteers and host country nationals?
39. Is the leadership of the Peace Corps Administration crucial for the success and sustainability of environmental programs in the FSM and Palau (yes/no)?
40. Please describe your observation of this leadership style while you were a Peace Corps Volunteer?
41. Is the leadership of Host Country Nationals crucial in the success and sustainability of environmental programs in the FSM and Palau (yes/no)?
42. Please describe your observations of this leadership style while you were a Peace Corps Volunteer.
43. In your opinion, what criteria do you believe makes environmental outreach in the FSM and/or Palau sustainable, and how do you measure its progress?
44. Which of these criteria and measures showed successful progress in the program you served under?
45. Which of these criteria and measures were lacking in the program you served, and why?

Part 5: Program Relevance

This section of the survey covers topics related to program relevance that address environmental management concerns in the FSM and/or Palau.

46. Did you think that your program's goals were relevant in addressing environmental management issues where you served (yes/no)?
47. Please elaborate why or why not.
48. If not, what issues would you recommend to be addressed by the Peace Corps if environmental programs were re-established?
49. Are there other environmental agencies that address environmental concerns where you served (yes/no/I don't know)?
50. If yes, what are the names of these agencies?
51. In your opinion, were they successful in implementing sustainable environmental programs in the FSM and Palau (yes/no)?
52. Please elaborate why or why not.
53. Do you think that the goals of the program were feasible in the culture and society that you served in (yes/no/I don't know)?
54. Please elaborate why or why not.

55. In your opinion, does the economic transition in the FSM and Palau have a potential negative impact on the success of environmental outreach (i.e. market economy, advanced technology) (yes/no/ I don't know)?
56. If so, please explain how.
57. In your opinion, does the economic transition in the FSM and Palau have a potential positive impact on the success of environmental outreach (i.e. market economy, advanced technology) (yes/no/ I don't know)?
58. If so, please explain how.
59. What recommendations would you make to integrate economic and social development with environmental protection and resource management?
60. Is there strong environmental policy where you served (yes/no/I don't know)?
61. If not, did this hinder the success of implementing environmental protection with your host agency (yes/no)?
62. In your opinion, did the members of the community that you resided in while serving in the Peace Corps understand the purpose of the program that you worked on with your host agency (yes/no/I don't know)?
63. Were the goals of the program integrated and implemented by community members in addition to the Peace Corps and the host agency (yes/no/I don't know)?
64. Please elaborate on community engagement of your projects if you would like.

Part 6: Recommendations

This section of the survey offers feedback for recommendations to the Peace Corps regarding environmental outreach in the FSM and Palau.

65. If environmental outreach was re-established with the Peace Corps where you served, which of the following topics should be addressed and improved (Training, Implementation, Sustainability, Leadership, Relevance, Economic Development, Community Involvement)?
66. Please elaborate on one or more of these topics if you would like.
67. What other topics do you think the Peace Corps should address regarding environmental outreach where you served?
68. The current programs in the Peace Corps FSM and Palau have been narrowed down to ESL teachers with environmental and health outreach as requested. Do you think that the FSM and Palau would benefit from environmental education volunteers in the academics (yes/no/I don't know)?
69. Did your position require you to teach or perform education outreach (yes/no)?
70. If yes, where did you teach and how viable would it be to send volunteers into this field?
71. If you would recommend environmental education with the Peace Corps in the FSM and/or Palau, what curriculum would you suggest to develop where you served?
72. How would you recommend increasing teaching resources, human and financial capacity?

73. If you recommend environmental education in the academic system where you served, where would a viable workforce be for graduating students (federal or state government, public works, non-profit, eco-tourism, teachers, etc.)?
74. If you do not recommend the Peace Corps to establish environmental education programs in the FSM and Palau, would you recommend other agencies become involved (yes/no/I don't know)?
75. If so, then who?
76. If not, then why?
77. If you do not recommend the Peace Corps become involved in environmental education, but would like to see the program that you served under or similar environmental programs re-established, please describe your recommendations.

Part 7: Additional Comments

This final section of the survey opens the floor to any additional comments that participants would like to submit regarding topics discussed in this survey.

78. Please submit additional comments regarding the content of this survey or the reflection of your Peace Corps experience. Thank you for participating.